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Book Reviews

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Biology of Aging: Observations and Principles, 2d ed. By Robert Arking. Sunderland, MA: Sinauer, 1998. Pp. 410. \$52.95 (cloth).

Robert Arking has given his colleagues a valuable book for teaching the biology of aging. This second edition builds from the solid foundation of the first, nicely capturing most of the major action of the past 6 years. Its organization and content are well suited to an entry-level course in the biology of aging. However, unlike many entry-level texts, Arking's book will oblige the lecturer to consult the main papers cited in the illustrative examples, so as not to oversimplify. This is a tall order, because the field of biogerontology is vast.

Consider the vast range of concepts and factual material in the book: DNA repair, endocrinology, cell-cycle regulation, and human pathology, not to mention genetic studies in invertebrates, studies of life span in human twins, the genetics of Alzheimer and other diseases, and the rising costs of health care in an aging society. The field of biogerontology, despite its remarkable progress during this decade, is still far from having a set of well-recognized canonical principles. It is fair to say that most mechanisms that underlie aging processes are still far from resolved.

Some nicely written background is provided for each special topic, and sections of the book are relatively independent. The book may be considered as a chimera of a textbook and an encyclopedia on aging. Prospective users may wish to know

that this is the only entry-level general text on the biology of aging written by an active molecular geneticist. Arking's research centers on the genetics of longevity in fruit flies and on artificial selection for life span by selecting for individuals that reproduce at later ages. This paradigm has been exploited most vigorously by Michael Rose, but Arking's own contributions are appropriately described.

The book is well provided with nicely organized figures, anatomical sketches, and tables. The bibliography includes ~1,000 full references, and the index works well. My few criticisms include the need for more-careful editing. For example, several tables did not include items of like kind cited in the text, and I identified some misspelled names in the text and bibliography. There is also no mention of estrogen-replacement therapy, which reduces the risk of osteoporotic fractures, heart attacks, and, quite possibly, Alzheimer disease and which represents a major emerging intervention into human aging. But these small nicks do not mar an overall strong book.

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